

# CHICAGO

Electric<sup>®</sup>Power Tools

## 2.5 LITER, NON-MEDICAL ULTRASONIC CLEANER

**Model 95563**

### ASSEMBLY AND OPERATION INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011

Visit our website at: <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY, READ AND UNDERSTAND  
ALL WARNINGS AND INSTRUCTIONS BEFORE USE.**

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**For technical questions or replacement parts, please call 1-800-444-3353.**

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## SPECIFICATIONS

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Electrical Requirements	120 Volts AC/60 Hz
Power Cord	4'8"; 18 AWG X3C SVT, 3 prong, 160 W
Dimensions	7-1/4" H X 11-3/8" L X 9" W
Tank Dimensions	3" D X 9-3/4" L X 5-1/2" W
Tank Capacity	2.5 L
Heated Water Temperature	149° F

### Save This Manual

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Write the product's serial number in the back of the manual near the assembly diagram, or write month and year of purchase if product has no number. Keep this manual and invoice in a safe and dry place for future reference.

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## GENERAL SAFETY RULES

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**READ AND UNDERSTAND ALL INSTRUCTIONS**  
**Failure to follow all instructions listed below may result in**  
**electric shock, fire, and/or serious injury.**  
**SAVE THESE INSTRUCTIONS**

### WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate this product in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Electrical products create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating this product.** Distractions can cause you to lose control.

### ELECTRICAL SAFETY

1. **Grounded products must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs.**

**Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.

2. **Double insulated products are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation  eliminates the need for the three wire grounded power cord and grounded power supply system.
3. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
4. **Do not expose this product to rain or wet conditions.** Water entering this product will increase the risk of electric shock.
5. **Do not abuse the Power Cord. Never use the Power Cord to carry the products or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.
6. **When operating a product outside, use an outdoor extension cord marked “W-A” or “W”.** These extension cords are rated for outdoor use, and reduce the risk of electric shock.

## PERSONAL SAFETY

1. **Stay alert. Watch what you are doing, and use common sense when operating this product. Do not use this product while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating this product may result in serious personal injury.
2. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
3. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Carrying this product with your finger on the Power Switch, or plugging it in with the Power Switch on, invites accidents.
4. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of this product in unexpected situations.

## TOOL USE AND CARE

1. **Do not force the product. Use the correct product for your application.** The correct product will do the job better and safer at the rate for which it is designed. Do not force the product and do not use the product for a purpose for which it is not intended.
2. **Do not use the product if the Power Switch does not turn it on or off.** Any product that cannot be controlled with the Power Switch is dangerous and must be replaced.
3. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the product.** Such preventive safety measures reduce the risk of starting the product accidentally. **Always unplug the product from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.**
4. **Store an idle Ultrasonic Cleaner out of reach of children and other untrained persons.** Ultrasonic Cleaners are dangerous in the hands of untrained users.
5. **Maintain products with care.** Do not use a damaged product. Tag damaged products “Do not use” until repaired.
6. **Check for breakage of parts and any other condition that may affect the product’s operation. If damaged, have the product serviced before using.** Many accidents are caused by poorly maintained products.
7. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one product may become hazardous when used on another product.

## SERVICE

1. **Product service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
2. **When servicing this product, use only identical replacement parts. Follow instructions in the “*Inspection, Maintenance, And Cleaning*” section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

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## SPECIFIC PRODUCT WARNINGS AND PRECAUTIONS

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1. **Maintain labels and nameplates on the product. These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.**

2. **Maintain a safe working environment.** Make sure there is adequate surrounding workspace. Do not use this product in a damp or wet location.
3. **People with pacemakers should consult their physician(s) before using this product. Electromagnetic fields in close proximity to a heart pacemaker could cause interference to or failure of the pacemaker.**
4. **Never leave this product unattended when it is plugged into an electrical outlet.** Turn off the product, and unplug it from its electrical outlet before leaving.
5. **Never immerse the Ultrasonic Cleaner in liquid.**
6. **Do not place or store the Ultrasonic Cleaner where it can fall or be pulled into a tub, sink or other free-standing pool of water.** Operate the product on a dry, level surface capable of supporting the Ultrasonic Cleaner and its contents.
7. **Do not submerge non-waterproof products into the water.**
8. **Do not use for medical purposes or medical sanitizing.**
9. **Do not overfill the Cleaner.** Use water only to the fill line when filling the tank.
10. **Do not clean multiple objects at a time.** Using many objects in the tank at one time will cause them to bang against one another, damaging both the articles being cleaned and the tank.
11. **Use only lukewarm water.** Excessively hot water will damage the transducer. Do not use penetrating oils in the Cleaner as they may damage the Cleaner and any materials being cleaned. Never use volatile solvents, gasoline, or other flammable liquids.

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## GROUNDING

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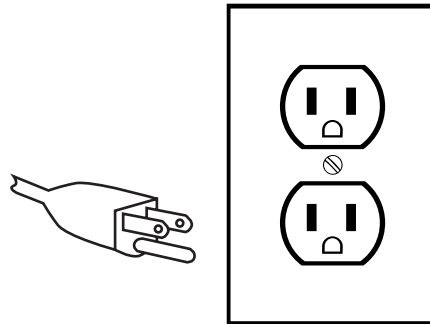
 **WARNING!**

**Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.**

## **GROUNDING TOOLS: TOOLS WITH THREE PRONG PLUGS**

The Ultrasonic Cleaner has a 3-prong plug.

1. Tools marked with “Grounding Required” have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See 3-Prong Plug and Outlet.)**
2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool’s grounding system and must never be attached to an electrically “live” terminal. **(See 3-Prong Plug and Outlet.)**
3. Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. **(See 3-Prong Plug and Outlet.)**



**3-Prong Plug and Outlet**

## **EXTENSION CORDS**




1. **Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. **(See Table A.)**
3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. **(See Table A.)**
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. **(See Table A.)**

5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size.  
**(See Table A.)**
6. If you are using an extension cord outdoors, make sure it is marked with the suffix “W-A” (“W” in Canada) to indicate it is acceptable for outdoor use.
7. Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

<b>RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS*</b> <b>(120 OR 240 VOLT)</b>					
<b>NAMEPLATE AMPERES (at full load)</b>	<b>EXTENSION CORD LENGTH</b>				
	<b>25 Feet</b>	<b>50 Feet</b>	<b>75 Feet</b>	<b>100 Feet</b>	<b>150 Feet</b>
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

**TABLE A** \* Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

### SYMBOLOLOGY

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
V~	Volts Alternating Current
A	Amperes
n <sub>0</sub> xxxx/min.	No Load Revolutions per Minute (RPM)

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## UNPACKING

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When unpacking, check to make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

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## OPERATION

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**Note:** FAILURE TO FILL THE ULTRASONIC CLEANER WITH WATER OR A NON-CORROSIVE CLEANING MATERIAL BEFORE USING WILL SEVERELY DAMAGE IT AND VOID THE WARRANTY.

1. Make certain that the Cleaner ON/OFF Switch is in the "OFF" position. Make certain that the Ultrasonic Cleaner is unplugged. Insert one end of the Cord into the Ultrasonic Cleaner, and the other end into a 120 V~ outlet.
2. Fill the tank so that the product is covered and the fluid is between the minimum and maximum fill lines. Fill the Cleaner with water or an appropriate ultrasonic cleaning fluid. Specially formulated ultrasonic cleaning materials are safe for most materials. Plastic safe cleaning fluids are recommended. Use water that is lukewarm (under 149° F). Excessively hot fluid will damage the Transducer.
3. Place article to be cleaned onto the Plastic Screen (8) inside of the Tank (9). Close the Tank Lid.
4. "180" will be displayed on the readout. 180 S (seconds, or three minutes) is the typical cycle for cleaning.
5. The Ultrasonic Cleaner has an automatic shut-off to avoid overheating. To prevent overheating and damaging the product, do not use more than 3 cycles in a fifteen minute period. This automatic safety shut-off will be activated after 45 minutes of continuous use.

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## CHOOSING A CLEANING CYCLE

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1. You can choose from 5 cleaning cycles: 90S, 180S, 280S, 380S, 480S.
2. Press "SET" to choose a cleaning cycle-see Figure 1. Press "ON" to begin the cleaning cycle. A green light on the readout will light up, indicating that the cycle is on. The time displayed on the LCD readout is the time remaining for the cycle to run. The unit will automatically turn itself off when the readout reaches zero.
3. On some occasions, the initial cleaning may not adequately clean the article. A second period of cleaning usually finishes the cleaning process. Pressing the "ON" Button will restart the cycle.
3. To pause or stop the cycle, press "OFF".



4. Unplug the Cleaner. Open the lid and remove the item using tongs.

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## CLEANING WITH HEAT

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1. Press the “TC” Button to use the heat function during a cycle of the Ultrasonic Cleaner. A red light on the readout will light up, indicating that the Heat cycle is on.
2. On some occasions, the initial cleaning may not adequately clean the article. A second period of cleaning usually finishes the cleaning process. Pressing the “ON” Button will restart the cycle.
3. To pause or stop the cycle, press “OFF”.
4. Unplug the Cleaner. Open the lid and carefully remove the item using tongs because the fluid will be hot.

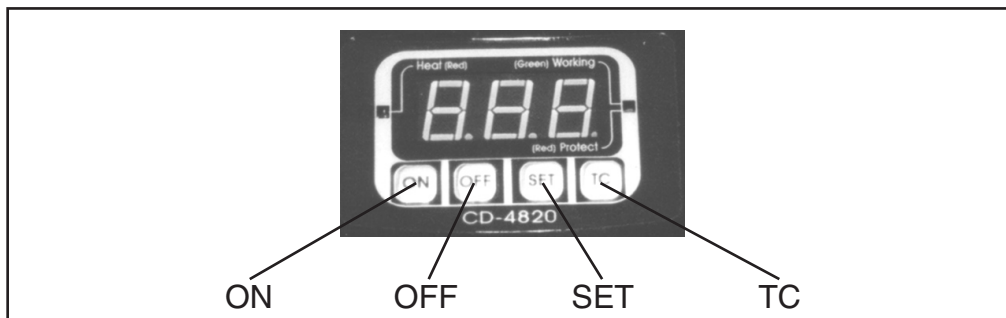


Figure 1

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## INSPECTION, MAINTENANCE, AND CLEANING

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1. **⚠️ WARNING!** Make sure the Power Switch of the tool is in its “OFF” position and that the Ultrasonic Cleaner is unplugged from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.
2. Before each use inspect the general condition of the Ultrasonic Cleaner. Check for cracked or broken parts, damaged power plug/Cord and any other condition that may affect the safe operation of the Ultrasonic Cleaner. If abnormal noise or vibration occurs, immediately disconnect the Ultrasonic Cleaner from its electrical supply source and have the problem corrected before further use. **DO NOT USE DAMAGED EQUIPMENT.**
3. Clean the Ultrasonic Cleaner’s water tank with a damp cloth. Remove any oil and residue after each use. Do not clean with flammable or corrosive liquids.

## TROUBLESHOOTING

Problem	Possible Causes	Probable Solutions
Cleaner will not start	<ol style="list-style-type: none"> <li>1. No power at outlet.</li> <li>2. Cord not connected.</li> <li>3. Overheating Safety Off feature kicked in</li> </ol>	<ol style="list-style-type: none"> <li>1. Check power at outlet.</li> <li>2. Check that cord is plugged in.</li> <li>3. Allow fifteen minutes before attempting to use the Ultrasonic Cleaner</li> </ol>

## PARTS LIST

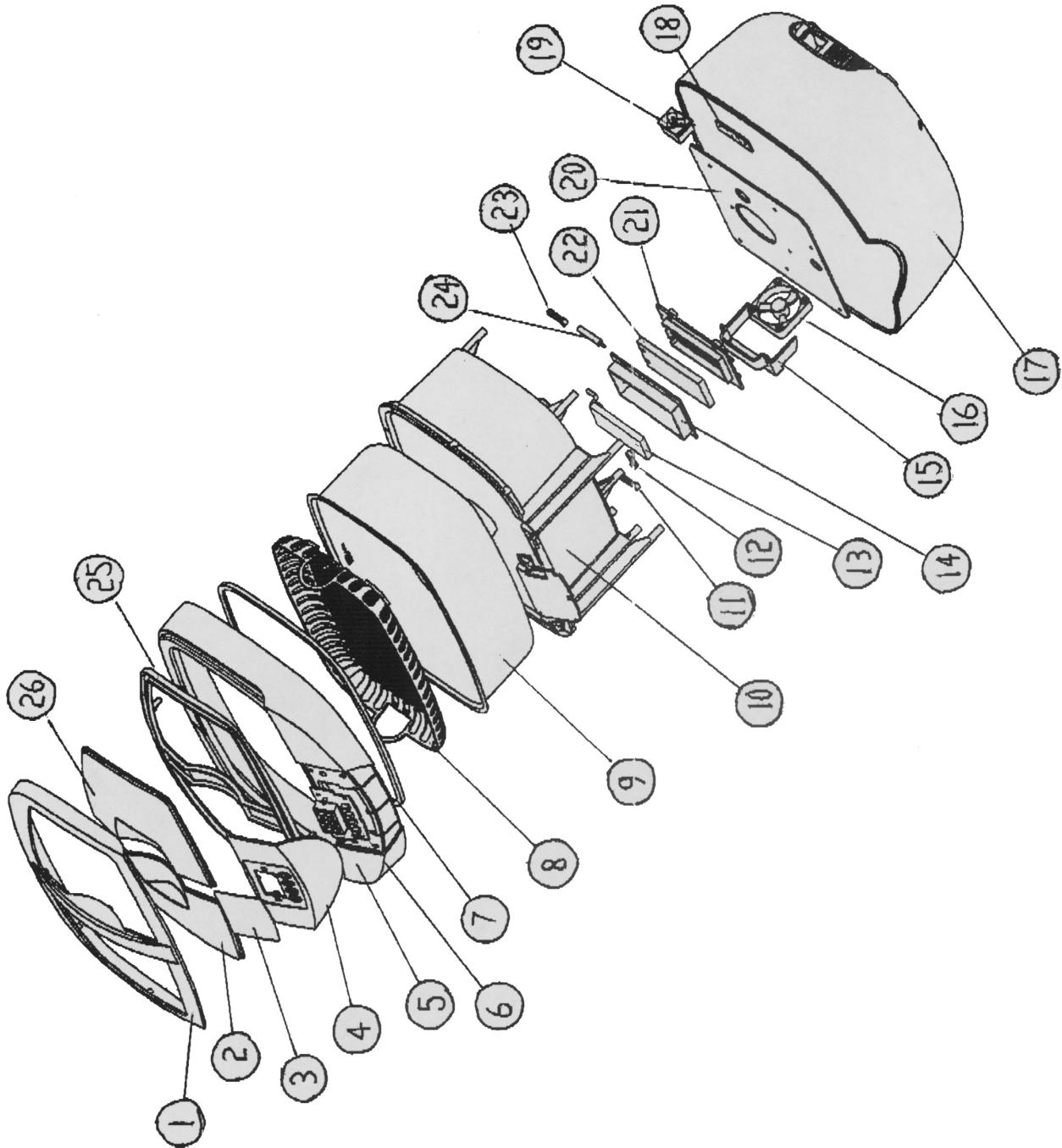
Part	Description	Q'ty	Part	Description	Q'ty
1	Lid	1	15	Fan Cover	1
2	Left Transparent Lid	1	16	Fan	1
3	Panel Cover	1	17	Bottom Housing	1
4	Decorated Cover	1	18	Circuit Board	1
5	Pressing Circle	1	19	Socket	1
6	Panel Board	1	20	Control Board	1
7	Silicon Sealing Ring	1	21	Heater Cover	1
8	Plastic Screen	1	22	Insulating Board	1
9	Tank	1	23	Terminal	1
10	Inner Tank	1	24	Thermoscope	1
11	Terminal	1	25	Inside Cover	1
12	Terminal	1	26	Right Transparent Lid	1
13	Heater Element	1	27	Transducer	1
14	Heater Box	1	28	Cord and Plug	1

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# ASSEMBLY DIAGRAM

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Parts #27 Transducer and #28 Cord/Plug not shown



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## WARRANTY

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**CHICAGO**  
**Electric Power Tools**

**LIMITED**  
**90 DAY/1 YEAR**  
**WARRANTY**

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser for a period of ninety days from date of purchase that the motor, the belts (if so equipped), and the blades (if so equipped) are free of defects in materials and workmanship. Harbor Freight Tools also warrants to the original purchaser, for a period of one year from date of purchase, that all other parts and components of the product are free from defects in materials and workmanship. This warranty does not apply to damage due directly or indirectly to misuse, abuse, negligence or accidents; repairs or alterations outside our facilities; or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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### **PLEASE READ THE FOLLOWING CAREFULLY**

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

**Record Product's Serial Number Here:** \_\_\_\_\_

**Note:** If product has no serial number, record month and year of purchase instead.

**Note:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

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